IN THE CLAIMS:

Please substitute the following claims for the same numbered claims in the application.

- 1. (Cancelled).
- 2. (Currently Amended) The metallurgical structure in claim 6, wherein said <u>first metal</u>

 plug, said second metal plug, and said metal line comprise a same material, wherein said same

 material comprises copper.
 - 3. (Previously Presented) The metallurgical structure in claim 6, wherein said first barrier layer and said second barrier layer comprise one or more layers of Ti, TiN, Ta, and TaN.
 - 4-5. (Cancelled).
 - (Currently Amended) A metallurgical structure comprising:
 - a passivation layer;
 - a via through said passivation layer extending to a metal line within said metallurgical structure;
 - a first barrier layer lining said via;
 - a first metal plug in said via above said first barrier layer;
 - a second barrier layer above said first metal plug;

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a second metal plug above said second barrier layer, wherein said second metal plug, said first barrier layer, and said second barrier layer form a planar exterior surface of said integrated circuit structure;

a solder bump formed on said planar exterior surface[.];

wherein said second metal plug is in direct contact with said solder bump[.]; and

wherein said second metal plug has a thickness sufficient to consume tin diffusing from
said solder bump.



- 7-8. (Cancelled).
- 9. (Currently Amended) The integrated circuit structure in claim 8 13, wherein said same material comprises copper.
- 10. (Currently Amended) The integrated circuit structure in claim 8 13, wherein said first barrier layer and said second barrier layer comprise one or more layers of Ti, TiN, Ta, and TaN.
- 11-12. (Cancelled).
- (Currently Amended) An integrated circuit structure comprising:
 internal components within an exterior covering;
 - a via extending through said exterior covering to said internal components;
 - a first barrier layer lining said via;
 - a first plug in said via above said first barrier layer;

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a second barrier layer above said first plug;

a second plug above said second barrier layer, wherein said second plug, said first barrier layer, and said second barrier layer form a planar exterior surface or said integrated circuit structure, and

a connector formed on said planar exterior surface;

wherein said second plug is in direct contact with said connector, and

wherein said first plug, and said second plug, and said internal components comprise a same material,

wherein said metal second plug forms sufficient intermetallies with elements diffusing from said solder bump so as to prevent said elements from penetrating through said first barrier layer and said second barrier layer into said internal components[.]; and

wherein said second plug has a thickness sufficient to consume tin diffusing from said solder bump.

14-21. (Cancelled).

- (Previously Presented) The integrated circuit structure of claim 13, wherein said 22. connector is comprised of a lead/tin alloy.
- (Currently Amended) A metallurgical structure, comprising: 23. forming a first layer of copper on a structure; forming a first barrier layer on said first layer of copper; forming a second layer of copper formed on said first barrier layer;

forming a second barrier layer on said second layer of copper;

forming a third layer of copper formed on said second barrier layer; and

forming a conductive structure that includes a given species including tin, at least some of said given species diffusing from said conductive structure, said second layer of copper having a thickness sufficient to form intermetallics with said species diffusing from said conductive structure, and to adhere to said conductive structure, so as to prevent said species from penetrating through said first barrier layer into said first layer of copper.

- 24. (Previously Presented) The structure of claim 23, wherein said conductive structure comprises a solder ball.
- 25. (Cancelled).



- 26. (Previously Presented) The structure of claim 24, wherein said solder ball comprises a lead/tin alloy.
- 27. (Previously Presented) The structure of claim 24, wherein said first barrier layer said second barrier layer are selected from the group consisting of Ti, TiN, Ta, TaN, and combinations thereof
- 28. (Previously Presented) The structure of claim 24, wherein said third layer of copper has an upper surface that is substantially coplanar with surrounding insulative structures.

- 29. (Previously Presented) The integrated circuit structure of claim 6, wherein said solder bump is comprised of a lead/tin alloy.
- 30. (Previously Presented) The integrated circuit structure of claim 6, wherein said second metal plug forms sufficient intermetallics with elements diffusing from said solder bump so as to prevent said elements from penetrating through said first barrier layer and said second barrier layer into said metal line.
- 31. (Previously Presented) The metallurgical structure of claim 23, further comprising planarizing said structure.